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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,435	08/17/2001	Hongjie Cao	1942	3469

7590

05/28/2003

Karen G. Kaiser
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EXAMINER

GOLLAMUDI, SHARMILA S

ART UNIT	PAPER NUMBER
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1616

DATE MAILED: 05/28/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/932,435

Applicant(s)

CAO ET AL.

Examiner

Sharmila S. Gollamudi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Receipt of Extension of Time, Preliminary Amendment B, Rule 132 Declaration, and Information Disclosure Statement received on March 7, 2003. Claims 1-28 are included in the prosecution of this application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16-17 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 and 17 respectively are vague and indefinite since the claims depend on themselves and it is unclear what the limitation is.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 10-11, 13-18, 20-26, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibata et al (EP 0784970).

EP teaches a hair cosmetic containing oxyalkylenized xanthan gum. The invention may be in the form of a hair setting composition containing 0.1-10% of the xanthan gum with a film-forming polymer. Suitable film-forming polymers such as acrylate copolymers are taught on page 6. The composition may be in the form of a permanent wave composition containing 0.1-10% of the xanthan gum and a reducing agent. See page 2, lines 43-54. A bundle of hair was towel-dried and the styling composition was applied to the hair, then the hair was wound around a rod, and dried naturally at a relative humidity of 98%. After the hair was dry, the curled hair was taken out of the rod and was suspended for 30 minutes. Table 2 sets forth the hair setting ability of the oxyalkylenized xanthan gum and had good hair-setting ability. Additionally the composition set forth in Table 2 is surfactant-free. The xanthan gum is added to water to provide for a xanthan gum solution and other components are added accordingly. See page 4. Furthermore, EP teaches the method of incorporating the xanthan gum into the composition is known in the art. See example 1.

EP does not specify the curl retention of at least 80%.

Although EP does not specify the curl retention of the composition, it is the examiner's position that Shibata's composition would provide the instant curl retention since EP teaches a permanent wave composition that fixes the hair in a given pattern. Furthermore, Table 2 discusses the good curl retention of a xanthan gum composition in

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high humidity conditions. Lastly, the amount of the fixative amount of prior art is that of the instant invention as seen in applicant's examples. Therefore, it deemed obvious to one of ordinary skill in the art at the time the invention was made to provide a fixative composition containing xanthan gum since EP clearly teaches that the modified xanthan gum has the ability to style and fix hair.

Claims 2-9, 12, 19, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibata et al (EP 0784970) in view of JP 11-236310.

As cited above, EP teaches a hair cosmetic containing oxyalkylenized xanthan gum. The invention may be in the form of a hair setting composition containing 0.1-10% of the xanthan gum with a film-forming polymer. Suitable film-forming polymers such as acrylate copolymers are taught on page 6. The composition may be in the form of a permanent wave composition containing 0.1-10% of the xanthan gum and a reducing agent. See page 2, lines 43-54. A bundle of hair was towel-dried and the styling composition was applied to the hair, then the hair was wound around a rod, and dried naturally at a relative humidity of 98%. After the hair was dry, the curled hair was taken out of the rod and was suspended for 30 minutes. Table 2 sets forth the hair setting ability of the oxyalkylenized xanthan gum and had good hair-setting ability. Additionally the composition set forth in Table 2 is surfactant-free. The xanthan gum is added to water to provide for a xanthan gum solution and other components are added accordingly. See page 4. Furthermore, EP teaches the method of incorporating the xanthan gum into the composition is known in the art. See example 1.

EP does teach the moisture content of the xanthan gum.

JP 11-236310 teaches a composition containing xanthan gum for cosmetics with excellent stability, efficacy, feel, and film-forming ability. The reference teaches the "drying decrease" (moisture content) to be preferably under 12% (pg. 5, first paragraph). The reference teaches that if the drying decrease is too high then the xanthan gum will not heat sufficiently, thus decreasing viscosity of the gum if it is not adequately heated. The reference teaches the method of making xanthan gum prior to mixing it into a cosmetic composition. The reference discloses that xanthan gum provides stability to the composition but has low viscosity and a greasy feel if too much is added. The reference discloses heating the gum 100 degrees and above to increase viscosity, and not to heat it above 140 degrees to avoid discoloration of the gum. The reference teaches the preferable range of the gum to be 5000-22000 cPs and thus it can be used in small quantities. (Note 4-6 and example 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings EP and JP and utilize a low moisture xanthan gum in the composition of EP. JP teaches the low moisture xanthan gum will indirectly effect the viscosity of the composition since it cannot heat well and if an increased quantity of xanthan gum is added to the composition, it will yield a greasy product; therefore one would be motivated being that the low moisture xanthan gum may be used in minimized quantity and still provide increased viscosity without resulting in a greasy product.

In regards to the recited viscosity and turbidity, it is deemed obvious to a skilled artisan in the art at the time the invention was made to manipulate the prior art's

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viscosity and turbidity parameters to provide for a desired result thorough routine experimentation. One would be motivated to increase the viscosity of a composition to yield a particular cosmetic form; i.e. a hair lotion versus a hair gel. Additionally, it is known to skilled artisan that a turbid solution has a value about 100 NTU or higher whereas a slight hazy solution has a value 20 to 50 NTU. See art of interest US 6,147,038. Therefore, a skilled practitioner would be motivated to decrease turbidity of the hair composition to manipulate the clarity of the composition to provide for an aesthetically pleasing product.

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11-236310 in view of Sajic et al (6.017.860).

As set forth above, JP 11-236310 teaches a composition containing xanthan gum in the amount of 0.01-2%, that can be used in hair cosmetics and in the form of a cream or gel. The reference teaches the method of making xanthan gum prior to mixing it into a cosmetic composition. The reference discloses that xanthan gum provides stability to the composition but has low viscosity and a greasy feel if too much is added. The reference discloses heating the gum 100 degrees and above to increases viscosity, and not to heat it above 140 degrees to avoid discoloration of the gum. The reference teaches the preferable range of the gum to be 5000-22000 cPs and thus it can be used in small quantities. (Note 4-6 and example 1).

JP 11-236310 does not specify the curl retention or utilizing a second polymer in the composition.

Sajic et al teach hair compositions with increasing holding capacity. The composition contains surfactants and styling aides in the form of anionic polymers and alkali metal salts thereof, swellable polymer thickening agents and other optional agents. See column 6, lines 6-11. The reference teaches the method of applying the composition to the hair and the ability of restyling the hair, which has been treated with the hair composition. The hair moistened with water, combed into desired configuration, and dried. See column 5, lines 60-66. Sajic et al teach the turbidity of the compositions (Note examples). Further, the reference teaches the 90% curl retention at high humidity and the styling effect of the inventive composition (Note Table 3 and 4 and examples).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of JP 11-236310 and Sajic et al and include a secondary polymer to yield the instant curl retention. One would be motivated to do to increase the style-retention capacity of the composition since Sajic teaches a fixative composition containing both xanthan gum and an anionic polymer to increase the styling/holding capacity of the hair composition.

Response to Amendment

The declaration under 37 CFR 1.132 filed March 7, 2003 is insufficient to overcome the rejection of claims 1-22 based upon the obviousness rejection as set forth in the last Office action because: the applicant has merely taken one example out of each reference and provided the curl retention; however the applicant has not provide any comparative data or unexpected results to overcome obviousness. Applicant argues that the instant specification provides unexpected data. However this is not

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persuasive since the comparison provided in the Rule 132 declaration is not commensurate in scope of the claim. The examples provided in the specification provide a composition containing xanthan gum and various fixative resin such as acrylates copolymers. The applicant compared the prior art's example 17 of Sajic and JP's example 13 respectively, which do not contain another fixative polymer and concluded that the compositions do not have the instant curl retention. This is likely since the prior art does not include a second fixative composition as seen in the applicant's examples. Additionally, it is noted that the applicant failed to provide the curling retention of Sajic's composition containing both a hair fixative and xanthan gum.

Response to Arguments

Applicant argues that Sajic does not teach a composition with its intended use of xanthan gum. Applicant argues that JP does not teach the use of xanthan gum in a hair fixative composition. It is argued that Sajic does not teach a formulation with and without xanthan gum to show that the xanthan gum is present in a fixative amount. Lastly, it is argued that a skilled artisan would not be motivated to add a hair fixative to a skin cream.

Applicant's arguments have been fully considered but they are not persuasive. First, the examiner points out that the rejection is an obviousness rejection and the prior art need not exemplify or anticipate the claims, the art merely needs to provide a suggestion. Therefore, although JP does not exemplify a hair composition, it is clear from JP's that such a suggestion is provided as seen on page 11 wherein JP teaches that the xanthan gum may be used in hair cosmetics. Furthermore, JP teaches that

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xanthan gum has excellent film-forming capabilities and is utilized in the amount of 0.01-2%. The examiner points out that his amount falls within the range of applicant's amount on page 7 wherein applicant states that the gum must be in the preferred amount of 1% and less than 3%. It is not understood how the applicant can use the same amount of xanthan gum with the same properties and in the same amount as the prior art and have a holding effect, whereas the prior art does not. As far as it can be ascertained from the data in the specification, the fixative property can also be from the secondary polymer and not only the xanthan gum since applicant has not provided an example containing only xanthan gum as the fixative resin. In regards to the secondary reference, Sajic is relied upon for its specific teachings and need not exemplify a formulation with and without xanthan gum. Sajic clearly shows that the combination of xanthan gum and a second polymer (as seen in the applicant's examples) provides for a fixative composition; therefore the motivation to utilize a second polymer in JP is to increase the hair-holding capacity.

Art of Interest

The prior art US 6,147,038 is cited as art of interest for its general teaching at the time the invention was made of turbidity as measured in NTU.

Correspondence

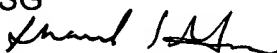
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharmila S. Gollamudi whose telephone number is (703) 305-2147. The examiner can normally be reached on M-F (7:30-4:30).


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jose Dees can be reached on (703) 308-4628. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3014 for regular communications and (703) 305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

SSG


May 20, 2003


MICHAEL G. HARTLEY
PRIMARY EXAMINER